CLAIMS

What is claimed is:

1.   A routing device comprising:

a dynamic routing module, operable to be executed at a particular time;

a configuration manager, coupled to a second routing device, operable to store configuration information associated with operational characteristics of a second dynamic routing module associated with the second routing device; and

a network information module, operable to store routing information from the second routing device;

wherein said dynamic routing module is executed upon an indication that the second dynamic routing module is no longer operating;

wherein said dynamic routing module is configured to operate according to said configuration information.

2.   The routing device of claim 1 wherein said routing device routes information for a cluster of network enabled devices.

3.   The routing device of claim 1 wherein said dynamic routing module implements an OSPF routing protocol.

4.   The routing device of claim 1 wherein said particular time is associated with a non-functioning state of the second dynamic routing module.

5.   The routing device of claim 1 wherein said particular time is associated with a predetermined time.

6.   The routing device of claim 1 wherein said particular time is associated with a condition associated with network traffic.

7.   The routing device of claim 1 further comprising a communication module, wherein said communication module transmits a hitless restart event based upon an event associated with said execution of said dynamic routing module.

8.   The routing device of claim 1, wherein at least a portion of said stored configuration information is stored in a device different from said routing device.

9.   The routing device of claim 1, wherein another device transmits a hitless restart upon an event associated with said execution of said dynamic routing module.

10.   The routing device of claim 1, further comprising a communications module operable to receive a reply from another routing device associated with the receipt of a hitless restart.

11.   A routing device comprising:

a means for dynamically routing datagrams, operable to be executed at a particular time;

a means for configuring said means for dynamically routing, coupled to a second routing device, operable to store configuration information associated with operational characteristics of a second means for dynamically routing datagrams associated with the second routing device; and

means for storing network information, operable to store routing information from the second routing device;

wherein said means for dynamically routing is executed upon an indication that the second means for dynamically routing is no longer operating;

wherein said means for configuring configures said means for dynamically routing according to said configuration information.

12.   The routing device of claim 11 wherein said routing device routes information for a cluster of network enabled devices.

13.   The routing device of claim 11 wherein said means for dynamic routing implements an OSPF routing protocol.

14.   The routing device of claim 11 wherein said particular time is associated with a non-functioning state of the second means for dynamic routing.

15.   The routing device of claim 11 wherein said particular time is associated with a predetermined time.

16.   The routing device of claim 11 wherein said particular time is associated with a condition associated with network traffic.

17.   The routing device of claim 11 further comprising a means for communication, wherein said means for communication transmits a hitless restart based upon an event associated with said execution of said means for dynamic routing.

18. The routing device of claim 11, wherein at least a portion of said stored configuration information is stored in a device different from said routing device.

19. The routing device of claim 11, wherein another device transmits a hitless restart event upon an event associated with said execution of said means for dynamic routing.

20. The routing device of claim 11, further comprising a means for communication operable to receive a reply from another routing device associated with the receipt of a hitless restart event.

21. A routing device comprising:

a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine at a particular time to perform a method for routing datagrams, the method comprising:

dynamically routing datagrams;

a configuration manager operable to configure said method for routing datagrams, coupled to a second routing device, operable to store configuration information associated with operational characteristics of a second means for dynamically routing datagrams associated with the second routing device; and

a network information module, operable to store routing information from the

second routing device;

wherein said method for routing is executed by said routing device upon an

indication that the second means for dynamically routing is no longer operating;

wherein said configuration manager configures said method for routing according

to said configuration information.

22.   The routing device of claim 21 wherein said routing device routes information for

a cluster of network enabled devices.

23.   The routing device of claim 21 wherein said method for routing implements an

OSPF routing protocol.

24.   The routing device of claim 21 wherein said particular time is associated with a

non-functioning state of the second means for dynamic routing.

25.   The routing device of claim 21 wherein said particular time is associated with a

predetermined time.

26.   The routing device of claim 21 wherein said particular time is associated with a condition associated with network traffic.

27.   The routing device of claim 21 further comprising a means for communication, wherein said means for communication transmits a hitless restart event based upon an event associated with said execution of said instructions for dynamic routing.

28.   The routing device of claim 21, wherein at least a portion of said stored configuration information is stored in a device different from said routing device.

29.   The routing device of claim 21, wherein another device transmits a hitless restart event upon an event associated with said execution of said method for routing.

30.   The routing device of claim 21, further comprising a means for communication operable to receive a reply from another routing device, the reply associated with the receipt of a hitless restart event by the another routing device.

31.   A routing device comprising:

        a dynamic routing module, operable to be executed at a particular time;

a network management module, operable to store routing information from a

second routing device;

a program storage device readable by a machine, tangibly embodying a program

of instructions executable by the machine at a particular time to perform a method for

configuring said dynamic routing module, said method comprising:

storing configuration information for said dynamic routing module, said

configuration information associated with operational characteristics of a second dynamic

routing module associated with the second routing device; and

wherein said dynamic routing module is executed upon an indication that the

second means for dynamically routing is no longer operating;

wherein said dynamic routing module is configured according to said

configuration information.

32.   The routing device of claim 31 wherein said routing device routes information for

a cluster of network enabled devices.

33.   A routing device comprising:

a dynamic routing module, operable to be executed at a particular time;

a configuration manager module operable to configure said dynamic routing

module, coupled to a second routing device, said configuration manager module operable

to store configuration information associated with operational characteristics of a second

dynamic routing module associated with the second routing device; and

a program storage device readable by a machine, tangibly embodying a program

of instructions executable by the machine at a particular time to perform a method for

storing routing information, said method comprising:

storing routing information from a second routing device;

wherein said means for dynamic routing module is executed upon an indication

that the second dynamic routing module is no longer operating;

wherein said configuration manager module configures said means for dynamic

routing module according to said configuration information.

34.   The routing device of claim 33 wherein said routing device routes information for

a cluster of network enabled devices.

35.   A method of routing datagrams through a first routing device in a network, the

method comprising:

storing configuration information associated with operational characteristics of a

second dynamic routing module associated with a second routing device;

storing routing information from the second routing device;

configuring said first routing device according to said configuration information;

selectively routing datagrams through said first routing device at a particular time;

wherein said step of selectively routing is performed upon an indication that the

second dynamic routing device is no longer operating;

36.   The method of claim 35 wherein said first routing device routes information for a

cluster of network enabled devices.

37.   The method of claim 35 wherein said step of selectively routing is performed

under an OSPF routing protocol.

38.   The method of claim 35 wherein said particular time is associated with a non-

functioning state of the second dynamic routing module.

39.   The method of claim 35 wherein said particular time is associated with a

predetermined time.

40.   The method of claim 35 wherein said particular time is associated with a condition

associated with network traffic.

41.   The method of claim 35 further comprising transmitting a hitless restart event

based upon an event associated with said step of selectively routing.

42.   The method of claim 35, wherein said step of storing configuration information is

performed in a device different from said first routing device.

43.   A routing device comprising:

       a control plane comprising:

              a dynamic routing module operable to determine a routing path for network

data;

              one or more control plane executable modules associated with controlling

the operational characteristics of a routing function;

       a forwarding plane comprising:

              a routing information module

              one or more forwarding plane executable modules associated with

forwarding datagrams to or from a network according to routing information;

a configuration manager, coupled to a second routing device, operable to store

configuration information associated with operational characteristics of a second dynamic

routing module associated with the second routing device; and

a network information module, operable to receive routing information from the

second routing device;

wherein said dynamic routing module is executed upon an indication that the

second dynamic routing module is no longer operating;

wherein said configuration manager configures said dynamic routing module

according to said configuration information.

44.   The device of claim 43 wherein said configuration device configures said dynamic

module according to said configuration information.